

Application Serial No. 10/500,241  
Amendment dated January 21, 2005  
Reply to Office Action dated November 30, 2004

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

Claim 1 (currently amended): [[Device]] A device for the variable actuation of the charge-cycle valves in reciprocating piston engines consisting of a housing, a cam mounted in the housing in a turning joint and whose rotating motion is derived from the crankshaft, an output element, which is mounted in the housing in a turning joint and which transmits the motion to a charge-cycle valve, and an intermediate element, which is mounted in the housing in a turning joint and which is connected with the cam through an output element and a cam joint, wherein the cam joint between the intermediate element and the output element comprises, at the intermediate element, a section that forms a stop notch and a control section. The section, the section-that forms [[a]] the stop notch is formed by a circular arc, whose center is identical with the center of rotation of the turning joint between the intermediate element and the housing, and is characterized in that the position of the cam joint can be changed by means of a shift in the position of the cam joint in relation to the turning joint, wherein this change in the position of the cam joint in the area of the valve stop notch, reflects a shift of the cam joint along the section of the contour of the intermediate element that forms the stop notch.

Claim 2 (currently amended): [[Device]] The device according to claim 1, characterized in that the cam joint between the intermediate element and the output element is formed by a rotation body-mounted on the output element and by a curve on the intermediate element.

Claim 3 (currently amended): [[Device]] The device according to claim 1, characterized in that, in order to change the valve lift curve, the position of the turning joint between the intermediate element-and the housing can be changed along a circular arc, whose arc whose circle middle point during the valve stop is identical to the center of rotation of the rotation body mounted on the output element.

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Claim 4 (currently amended): [[Device]] The device according to claim 1, characterized in that in order to change the valve lift curve, the position of the turning joint between the output element and the housing can be changed along a circular ~~arc, whose arc whose~~ circle middle point is identical to the center of rotation of the turning joint between the intermediate element and the housing.

Claim 5 (currently amended): [[Device]] The device according to claim 1, characterized in that the intermediate element is essentially designed as a toggle lever.

Claim 6 (currently amended): ~~Device~~ The device according to claim 1, characterized in that the intermediate element is essentially designed as a cam follower.

Claim 7 (currently amended): [[Device]] A device for the variable actuation of the charge-cycle valves in reciprocating piston engines, consisting of a housing, a cam mounted in a turning joint in the housing, and whose rotating motion is derived from a crankshaft, an output element, which is mounted in a turning joint in the housing, and which transmits the motion to the charge-cycle valve, and an intermediate element that is mounted in a turning joint in the housing and is connected with the cam and the output element through a cam joint, wherein the cam joint that sits between the intermediate element and the output element comprises a section that forms [[a]] the stop notch and a control section, and which is characterized in that the section of the cam joint that forms a stop notch is formed by a curve on the output element, which is a circular arc, whose center is identical to the center of rotation of the turning joint, and further characterized in that the position of the cam joint can be changed, wherein this change in the position of the cam joint in the area of the valve stop notch reflects a shift along the section of the contour of the output element.

Claim 8 (currently amended): [[Device]] The device according to claim 7, characterized in that the cam joint between the intermediate element and the output element is formed, on the intermediate element, by a rotation body.

Claim 9 (currently amended): [[Device]] The device according to claim 6, characterized in that the cam joint between the output element and the valve on its output element's side, is

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essentially formed by a circular arc, whose circle center lies on a straight line, and on which there also lies the rotation center of the turning joint between the intermediate element and the housing, and which runs essentially parallel to the motion of the valve.

Claim 10 (currently amended): [[Device]] The device according to claim 1, characterized in that the suction valve of a cylinder is actuated through a cam, an intermediate element and an output element, and an exhaust valve is actuated through a cam, an intermediate element, and an output element, and that a cam is mounted on a camshaft.

Claim 11 (currently amended): [[Device]] The device according to claim 10, characterized in that the intermediate elements actuate the suction and exhaust valves of a cylinder by means of a single cam of a camshaft.

Claim 12 (currently amended): [[Device]] The device according to claim 1, characterized in that the cam joint between the intermediate element and the output element lies in the same plane in which the camshaft stands vertically, and in which there also lies the cam joint that sits between the intermediate element and the cam.

Claim 13 (currently amended): [[Device]] The device according to claim 1, characterized in that the cam joint does not lie in the same plane in which the camshaft stands vertically, and in which there also lies the cam joint that sits between the intermediate element and the cam.

Claim 14 (currently amended): [[Device]] The device according to claim 1, characterized in that the cam-actuates a single intermediate element, which actuates, through one or more output element elements, two or more valves of a cylinder.

Claim 15 (currently amended): [[Device]] The device according to claim 1, characterized in that the intermediate element is pressed against the cam of the camshaft by a spring.

Claim 16 (currently amended): [[Device]] The device according to claim 1, characterized in that at least one more drive element is introduced into the system in order to transmit the motion of the cam-of the ~~camshaft~~ camshaft to the intermediate element.

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Claim 17 (currently amended): [[Device]] The device according to claim 2, characterized in that, in order to change the valve lift curve, the position of the turning joint between the intermediate element and the housing can be changed along a circular ~~arc, whose arc whose~~ circle middle point during the valve stop is identical to the center of rotation of the rotation body mounted on the output element.

Claim 18. (currently amended): [[Device]] The device according to claim 2, characterized in that in order to change the valve lift curve, the position of the turning joint between the output element and the housing can be changed along a circular ~~arc, whose arc whose~~ circle middle point is identical to the center of rotation of the turning joint between the intermediate element and the housing.

Claim 19 (currently amended): [[Device]] The device according to claim 2, characterized in that the intermediate element is essentially designed as a toggle lever.

Claim 20 (currently amended): [[Device]] The device according to claim 3, characterized in that the intermediate element is essentially designed as a toggle lever.